



# **Department of System Analysis and Information-Analytical Technologies**

**Faculty: “Computer Science and Software Engineering”**

**National technical University  
“Kharkov polytechnic institute”**



# Areas of studying

- Automated control of complex technological processes
- Analysis and mathematical description of complex objects and synthesis of computerized control systems
- Development of information systems, analysis of large volumes of information for making control decisions
- Technologies for efficient data analysis (OLAP, BigData)
- Data Mining
- Decision support system
- Information technologies in the media industry



# Employment perspectives

- Leading global and Ukrainian IT-companies (Google, Siemens, Yandex Ukraine, Telesens, EPAM, NIX Solutions, Sigma, Global Logic)
- State administrations of different levels, the executive bodies of councils at various levels, statistical offices, tax inspections
- Financial institutions, high-tech industrial complexes, analytical departments of institutions, environmental objects, energy, housing and utilities
- Publishing and printing houses



# 122 Computer Science and Information Technologies

Information-analytical systems and technologies



# General academic disciplines, bachelor's degree

- Programming
- Object-oriented Programming
- Discrete Math
- Operating Systems and System Programming
- Cryptology
- Databases and Information Systems
- Design of Information Systems
- Distributed Information Systems
- Programming Languages for Computer Networks
- Computer-aided Design Software
- Theory of Parse and Development of Compilers
- System Administration



# General academic disciplines, master's degree

- Information Security in Computer Networks
- Designing Multi-user Information Systems and Knowledge Bases
- Expert Systems and Knowledge Bases
- Intellectual Property
- The Theory of Examination and Processing of Expert Data
- Conflict-driven System
- Intelligent Decision-making System in the Social Sphere
- Simulation Modeling of Social and Economic Processes
- Statistical Analysis of Socio-economic Information
- Geographic Information Systems
- Banking Information Systems
- The Theory of Risk in Socio-economic Systems



# 124 System Analysis

Systems Analysis and Control



# General academic disciplines, bachelor's degree

- Programming
- Object-oriented Programming
- Theory of Probability and Mathematical Statistics
- Operating Systems and System Programming
- Information Technologies of System Analysis
- Control Theory
- Mathematical Methods of System Analysis
- Databases and Information Systems
- Optimal Control and Conflict Controlled Systems
- Intelligent Data Analysis and Processing System





# General academic disciplines, master's degree

- Statistical Methods of System Analysis and Decision-making
- Modern Methods of Optimal Control
- Intelligent Decision Support System
- Distributed Information Systems
- Intellectual Property
- Modern Mathematical Apparatus for System Studies
- Expert Systems and Knowledge Bases
- Statistical Analysis of Socio-economic Information
- Artificial Neural Networks
- Project Management
- Modeling And Identification of Control Systems
- Data Mining Technologies



# 186 Publishing and Printing

Information technologies in the Media Industry



# General academic disciplines, bachelor's degree

- Publishing and Technical Editing
- Prepress Data Processing
- Publishing and Printing Materials
- Software Publishing
- Modern Methods of Data Compression
- Fundamentals of Design Printing Publications
- Technology Electronic Publications
- Storage and Restoration of Publications
- Advertising Technologies
- Illustrative Products Computer Design

